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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/891,235	06/27/2001	Takahiro Hosomi	053969-0128	1598

22428 7590 11/28/2006

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EXAMINER

TORRES, JUAN A

ART UNIT	PAPER NUMBER
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2611

DATE MAILED: 11/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/891,235	Applicant(s) HOSOMI, TAKAHIRO	
	Examiner Juan A. Torres	Art Unit 2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3-8, 14-19, 23 and 24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3-8, 14-19, 23 and 24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 June 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: "1" (page 7 line 10); "d4" (page 10 line 20). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

Art Unit: 2611

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The abstract of the disclosure is objected to because in line 5 uses form and legal phraseology often used in patent claims, such as "means". Correction is required.

See MPEP § 608.01(b).

The disclosure is objected to because of the following informalities:

a) The recitation in page 12 line 4 "d 23" is improper; it is suggested to be changed to "d23" (see figure 32);

b) The recitation in page 20 line 13 "IC" is improper because this acronym has not been introduced previously; it is suggested to be changed to "Integrated Circuit (IC)" (see figure 32).

Appropriate correction is required.

Claim Objections

Claims 1 and 2 are objected to because of the following informalities: Claims 1 and 2 are cancelled (see Applicant Arguments/Remarks Made in an Amendment filed on 03/09/2006 page 7 lines 1-2); it is suggested to cancel these claims.

In a telephone interview with the Applicant's representative Phillip J. Articola Registration No. 38,819 on 11/08/2006, he acknowledged that these claims are cancelled.

Appropriate correction is required.

Allowable Subject Matter

The indicated allowability of claims 3-8, 14-19 and 23-24 is withdrawn in view of the newly discovered reference(s) to Lucidarme (EP 930721 A1) and Yamaura (US 5504776 A). Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 3-8 and 23 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claims 3-8 and 23 are rejected because they are single means claims. A single means claim, i.e., where a means recitation does not appear in combination with another recited element of means, is subject to an undue breadth rejection under 35 U.S.C. 112, first paragraph. In re Hyatt, 708 F.2d 712, 714-715, 218 USPQ 195, 197 (Fed. Cir. 1983) (A single means claim which covered every conceivable means for achieving the stated purpose was held nonenabling for the scope of the claim because the specification disclosed at most only those means known to the inventor.). When claims depend on a recited property, a fact situation comparable to Hyatt is possible, where the claim covers every conceivable structure (means) for achieving the stated property (result) while the specification discloses at most only those known to the

Art Unit: 2611

inventor.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 3-8, 14-19, 23 and 24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per claims 3-8 and 23, claims 3-8 and 23 are rejected because of the following informalities: Claims 3-8 and 23 are apparatus claims, but they do not define any structure. MPEP in section 2114 states that “[A]pparatus claims cover what a device is, not what a device does.” *Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990) (emphasis in original)”. And also that “While features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function. *In re Schreiber*, 128 F.3d 1473, 1477-78, 44 USPQ2d 1429, 1431-32 (Fed. Cir. 1997)”.

As per claims 14-19 and 24, claim 14-19 and 24 are rejected because the provide for the use of controlling a transmission bandwidth and a transmission power of a counterpart equipment depending upon a communication quality, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claims 14-19 and 24 are rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 3-8, 14-19 and 23-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamaura (US 5504776 A).

As per claim 3, Yamaura discloses a spread spectrum communication system comprising control means for controlling a transmission bandwidth and a transmission power of a counterpart equipment depending upon a communication quality (figure 14 column 9 lines 11-30), wherein when said communication quality is degraded below a predetermined level, said control means varies a transmission band to a wider frequency band when vacant band is present in a wider band than a currently used frequency band (figure 10 block s14 column 12 lines 8-19 and 60-65).

As per claim 4, Yamaura discloses a spread spectrum communication system comprising control means for controlling a transmission bandwidth and a transmission

Art Unit: 2611

power of a counterpart equipment depending upon a communication quality (figure 14 column 12 lines 8-19 and 60-65); wherein when said communication quality is degraded below a predetermined level, said control means increases a transmission power when vacant band is not present in a wider band than a currently used frequency band (column 8 lines 56-67 figures 8A to 8C. The effect of increasing the power is equivalent, under the doctrine of equivalents to the effect of increasing the bandwidth (column 8 lines 56-67 figures 8A to 8C) increasing the bandwidth to increase the quality (figure 10 block s14 column 9 lines 11-30) and when no bandwidth is available he system will use the transmission power to meet the quality requirements (column 12 lines 44-49).

As per claim 5, Yamaura discloses a spread spectrum communication system comprising control means for controlling a transmission bandwidth and a transmission power of a counterpart equipment depending upon a communication quality (figure 14 column 12 lines 8-19 and 60-65), wherein when said communication quality is not degraded below a predetermined level and the transmission power is not minimum, the transmission power is lowered (column 12 lines 60-65 and column 14 lines 41-47).

As per claim 6, Yamaura discloses a spread spectrum communication system comprising control means for controlling a transmission bandwidth and a transmission power of a counterpart equipment depending upon a communication quality (figure 14 column 12 lines 8-19 and 60-65), wherein when said communication quality is not degraded below a predetermined level and the transmission power is minimum, and when vacant band is not present in a narrower band than a currently used frequency

band, the current frequency band and transmission power are maintained (figure 10 block s17 column 9 lines 31-40).

As per claim 7, Yamaura discloses a spread spectrum communication system comprising control means for controlling a transmission bandwidth and a transmission power of a counterpart equipment depending upon a communication quality (figure 14 column 12 lines 8-19 and 60-65), wherein when said communication quality is not degraded below a predetermined level and the transmission power is minimum, and when vacant band is present in a narrower band than a currently used frequency band, the frequency band is varied to narrower band (figure 10 block s16 column 9 lines 31-47).

As per claim 8, Yamaura discloses a spread spectrum communication system comprising control means for controlling a transmission bandwidth and a transmission power of a counterpart equipment depending upon a communication quality (figure 14 column 12 lines 8-19 and 60-65), wherein said communication quality is classified into three levels depending upon degree, when said communication quality is in medium level, said control means maintains current frequency band and transmission power (figure 10 block s17 column 9 lines 31-40).

As per claim 14, Yamaura discloses a spread spectrum communication method comprising control step of controlling a transmission bandwidth and a transmission power of a counterpart equipment depending upon a communication quality (figures 9 and 10 column 9 lines 11-64), wherein when said communication quality is degraded below a predetermined level, said control step varies a transmission band to a wider

Art Unit: 2611

frequency band when vacant band is present in a wider band than a currently used frequency band (figure 10 block s14 column 12 lines 8-19 and 60-65).

As per claim 15, Yamaura discloses a spread spectrum communication method comprising control step of controlling a transmission bandwidth and a transmission power of a counterpart equipment depending upon a communication quality (figures 9 and 10 column 9 lines 11-64), wherein when said communication quality is degraded below a predetermined level, said control step increases a transmission power when vacant band is not present in a wider band than a currently used frequency band (column 8 lines 56-67 figures 8A to 8C. The effect of increasing the power is equivalent, under the doctrine of equivalents to the effect of increasing the bandwidth (column 8 lines 56-67 figures 8A to 8C) increasing the bandwidth to increase the quality (figure 10 block s14 column 9 lines 11-30) and when no bandwidth is available the system will use the transmission power to meet the quality requirements (column 12 lines 44-49).

As per claim 16, Yamaura discloses a spread spectrum communication method comprising control step of controlling a transmission bandwidth and a transmission power of a counterpart equipment depending upon a communication quality (figures 9 and 10 column 9 lines 11-64), wherein when said communication quality is not degraded below a predetermined level and the transmission power is not minimum, the transmission power is lowered (column 12 lines 60-65 and column 14 lines 41-47).

As per claim 17, Yamaura discloses a spread spectrum communication method comprising control step of controlling a transmission bandwidth and a transmission power of a counterpart equipment depending upon a communication quality (figures 9

Art Unit: 2611

and 10 column 9 lines 11-64), wherein when said communication quality is not degraded below a predetermined level and the transmission power is minimum, and when vacant band is not present in a narrower band than a currently used frequency band, the current frequency band and transmission power are maintained (figure 10 block s17 column 9 lines 31-40).

As per claim 18, Yamaura discloses a spread spectrum communication method comprising control step of controlling a transmission bandwidth and a transmission power of a counterpart equipment depending upon a communication quality (figures 9 and 10 column 9 lines 11-64), wherein when said communication quality is not degraded below a predetermined level and the transmission power is minimum, and when vacant band is present in a narrower band than a currently used frequency band, the frequency band is varied to narrower band (figure 10 block s16 column 9 lines 31-47).

As per claim 19, Yamaura discloses a spread spectrum communication method comprising control step of controlling a transmission bandwidth and a transmission power of a counterpart equipment depending upon a communication quality (figures 9 and 10 column 9 lines 11-64), wherein said communication quality is classified into three levels depending upon degree, when said communication quality is in medium level, said control step maintains current frequency band and transmission power (figure 10 block s17 column 9 lines 31-40).

As per claim 23, Yamaura discloses a spread spectrum communication system comprising control means for controlling a transmission bandwidth and a transmission

Art Unit: 2611

power of a counterpart equipment depending upon a communication quality (figure 14 column 12 lines 8-19 and 60-65), wherein when said communication quality is degraded below a predetermined level, said control means varies the transmission band width in preference to varying the transmission power (column 12 lines 44-49).

As per claim 24, Yamaura discloses a spread spectrum communication method comprising control step of controlling a transmission bandwidth and a transmission power of a counterpart equipment depending upon a communication quality (figures 9 and 10 column 9 lines 11-64), wherein when said communication quality is degraded below a predetermined level, said control step varies the transmission band width in preference to varying the transmission power (column 12 lines 44-49).

Claims 3-8, 14-19 and 23-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Lucidarme (EP 930721 A1).

As per claim 3, Lucidarme discloses a spread spectrum communication system comprising control means for controlling a transmission bandwidth and a transmission power of a counterpart equipment depending upon a communication quality (abstract figure 5 paragraphs [0040]-[0043]), wherein when said communication quality is degraded below a predetermined level, said control means varies a transmission band to a wider frequency band when vacant band is present in a wider band than a currently used frequency band (figure 5 paragraph [0026]-[0028], [0033], [0037], [0040], [0043] and [0054]).

As per claim 4, Lucidarme discloses a spread spectrum communication system comprising control means for controlling a transmission bandwidth and a transmission

power of a counterpart equipment depending upon a communication quality (abstract figure 5 paragraphs [0040]-[0043]); wherein when said communication quality is degraded below a predetermined level, said control means increases a transmission power when vacant band is not present in a wider band than a currently used frequency band (figure 5 block 66 paragraph [0026], [0027], [0037], [0040], [0043] and [0054]).

As per claim 5, Lucidarme discloses a spread spectrum communication system comprising control means for controlling a transmission bandwidth and a transmission power of a counterpart equipment depending upon a communication quality (abstract figure 5 paragraphs [0040]-[0043]), wherein when said communication quality is not degraded below a predetermined level and the transmission power is not minimum, the transmission power is lowered (figure 5 block 66 paragraph [0037], [0040], [0043] and [0054]).

As per claim 6, Lucidarme discloses a spread spectrum communication system comprising control means for controlling a transmission bandwidth and a transmission power of a counterpart equipment depending upon a communication quality (abstract figure 5 paragraphs [0040]-[0043]), wherein when said communication quality is not degraded below a predetermined level and the transmission power is minimum, and when vacant band is not present in a narrower band than a currently used frequency band, the current frequency band and transmission power are maintained (figure 5 block 66 paragraph [0037], [0040], [0043] and [0054]).

As per claim 7, Lucidarme discloses a spread spectrum communication system comprising control means for controlling a transmission bandwidth and a transmission

Art Unit: 2611

power of a counterpart equipment depending upon a communication quality (abstract figure 5 paragraphs [0040]-[0043]), wherein when said communication quality is not degraded below a predetermined level and the transmission power is minimum, and when vacant band is present in a narrower band than a currently used frequency band, the frequency band is varied to narrower band (figure 5 block 66 paragraph [0037], [0040], [0043] and [0054]).

As per claim 8, Lucidarme discloses a spread spectrum communication system comprising control means for controlling a transmission bandwidth and a transmission power of a counterpart equipment depending upon a communication quality (abstract figure 5 paragraphs [0040]-[0043]), wherein said communication quality is classified into three levels depending upon degree, when said communication quality is in medium level, said control means maintains current frequency band and transmission power (figure 5 block 66 paragraph [0037], [0040], [0043] and [0054]).

As per claim 14, Lucidarme discloses a spread spectrum communication method comprising control step of controlling a transmission bandwidth and a transmission power of a counterpart equipment depending upon a communication quality (abstract paragraphs [0040]-[0043]), wherein when said communication quality is degraded below a predetermined level, said control step varies a transmission band to a wider frequency band when vacant band is present in a wider band than a currently used frequency band (figure 5 block 66 paragraph [0037], [0040], [0043] and [0054]).

As per claim 15, Lucidarme discloses a spread spectrum communication method comprising control step of controlling a transmission bandwidth and a transmission

Art Unit: 2611

power of a counterpart equipment depending upon a communication quality (abstract paragraphs [0040]-[0043]), wherein when said communication quality is degraded below a predetermined level, said control step increases a transmission power when vacant band is not present in a wider band than a currently used frequency band (paragraph [0026]-[0028], [0033], [0037], [0040], [0043] and [0054]).

As per claim 16, Lucidarme discloses a spread spectrum communication method comprising control step of controlling a transmission bandwidth and a transmission power of a counterpart equipment depending upon a communication quality (abstract paragraphs [0040]-[0043]), wherein when said communication quality is not degraded below a predetermined level and the transmission power is not minimum, the transmission power is lowered (column 12 lines 60-65 and column 14 lines 41-47).

As per claim 17, Lucidarme discloses a spread spectrum communication method comprising control step of controlling a transmission bandwidth and a transmission power of a counterpart equipment depending upon a communication quality (abstract paragraphs [0040]-[0043]), wherein when said communication quality is not degraded below a predetermined level and the transmission power is minimum, and when vacant band is not present in a narrower band than a currently used frequency band, the current frequency band and transmission power are maintained (paragraph [0037], [0040], [0043] and [0054]).

As per claim 18, Lucidarme discloses a spread spectrum communication method comprising control step of controlling a transmission bandwidth and a transmission power of a counterpart equipment depending upon a communication quality (abstract

paragraphs [0040]-[0043]), wherein when said communication quality is not degraded below a predetermined level and the transmission power is minimum, and when vacant band is present in a narrower band than a currently used frequency band, the frequency band is varied to narrower band (paragraph [0037], [0040], [0043] and [0054]).

As per claim 19, Lucidarme discloses a spread spectrum communication method comprising control step of controlling a transmission bandwidth and a transmission power of a counterpart equipment depending upon a communication quality (abstract paragraphs [0040]-[0043]), wherein said communication quality is classified into three levels depending upon degree, when said communication quality is in medium level, said control step maintains current frequency band and transmission power (paragraph [0037], [0040], [0043] and [0054]).

As per claim 23, Lucidarme discloses a spread spectrum communication system comprising control means for controlling a transmission bandwidth and a transmission power of a counterpart equipment depending upon a communication quality (abstract figure 5 paragraphs [0040]-[0043]), wherein when said communication quality is degraded below a predetermined level, said control means varies the transmission band width in preference to varying the transmission power (paragraph [0037], [0040], [0043] and [0054]).

As per claim 24, Lucidarme discloses a spread spectrum communication method comprising control step of controlling a transmission bandwidth and a transmission power of a counterpart equipment depending upon a communication quality (abstract paragraphs [0040]-[0043]), wherein when said communication quality is degraded below

Art Unit: 2611

a predetermined level, said control step varies the transmission band width in preference to varying the transmission power (paragraph [0037], [0040], [0043] and [0054]).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Juan A. Torres whose telephone number is (571) 272-3119. The examiner can normally be reached on Monday-Friday 9:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad H. Ghayour can be reached on (571) 272-3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Juan Alberto Torres
11-08-2006

TEMESGHEN GHEBRETISSAE
PRIMARY EXAMINER
11/24/06
02